



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/595,342

04/11/2006

Terje H. Houen

1935-00233

7881

26753

7590

01/07/2010

ANDRUS, SCEALES, STARKE & SAWALL, LLP  
100 EAST WISCONSIN AVENUE, SUITE 1100  
MILWAUKEE, WI 53202

EXAMINER

CAMPOS, JR., JUAN J

ART UNIT

PAPER NUMBER

3654

MAIL DATE

DELIVERY MODE

01/07/2010

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/595,342	<b>Applicant(s)</b> HOUEN, TERJE H.	
	<b>Examiner</b> Juan J. Campos	<b>Art Unit</b> 3654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 November 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 29-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 29-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 April 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                        | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Specification***

1. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required.
2. The specification as originally filed fails to provide support for an inner cylindrical portion and an outer cylindrical portion. The specification as originally filed only supports one plurality of cylindrical segments 30 (see pages 6-7 line 23 to line 3), not an inner cylindrical portion and an outer cylindrical portion.

### ***Drawings***

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, an inner cylindrical portion and an outer cylindrical portion (claim 29) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate

Art Unit: 3654

changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

#### ***Claim Objections***

**4. Claim 29** objected to because of the following informalities: the word –the– should be inserted between "wherein" and "second" (see line 9 of claim 1). Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 112***

**5. Claim 29** is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

**6. Regarding claim 29**, the claim claims both "an inner cylindrical center portion" and "an outer cylindrical center portion". However, the specification as filed (see pages 6-7 and figures 1 and 2) only discloses one plurality of cylinder segments 30, not the

Art Unit: 3654

subject matter of "an inner cylindrical center portion" and "an outer cylindrical center portion". Thus, the examiner does not consider the claimed subject matter of "an inner cylindrical center portion" and "an outer cylindrical portion" properly described in the specification as filed. Further, the examiner considers the "an inner cylindrical center portion" and "an outer cylindrical portion" as claimed in claim 29 to be new matter, since not mention of the matter was previous made.

**7.** The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

**8.** **Claim 29** is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

**9.** **Regarding claim 29**, this claim claims "an outer cylindrical center portion having a second diameter that is greater than the first diameter and comprising a second plurality of cylinder segments separably connected together in series, wherein second plurality of cylinder segments is greater than the first plurality of cylinder segments" (see claim 1 lines 7-10). The underlined portion of the claim language is not clear since the item of the "second plurality of cylinder segments" greater than the "first plurality of cylinder segments" is not clear given. The language appears to claim that the diameter of the second plurality of cylinder segments is greater than the diameter of the first plurality of segments. For this office action, prior art capable of having a second

Art Unit: 3654

plurality of cylinder segments with a diameter greater than a diameter of a first plurality of cylinder segments will be consider as reading onto this claim.

***Claim Rejections - 35 USC § 102***

**10.** The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**11. Claims 29-31 are rejected under 35 U.S.C. 102(b) as being anticipated by Harvey (EPO Patent Application 0491400 A1).**

**12. Regarding claim 29,** Harvey discloses a collapsible metal reel comprising a pair of opposing end flanges (11, 12 and 51, see figures 1 and 5), each opposing end flange comprising a flange sector (51 for each of 11 and 12, see column 5 lines 1-6) and a flange segment (11 and 12) that is separably connected to the flange sector (see column 5 lines 7-12 and column 6 lines 20-26), an inner cylindrical center portion (see segments 24 in figure 2) having a first diameter d2 and comprising a first plurality of cylinder segments (see figures 1-2, column 4 lines 13-20) separably connected together in series, an outer cylindrical center portion (see segments 23 in figure 2) having a second diameter d1 that is greater than the first diameter (see figure 2) and comprising a second plurality of cylinder segments (see figures 1-2, column 4 lines 5-10) separably connected together in series, wherein second plurality of cylinder segments is greater than the first plurality of cylinder segments (see figure 2), wherein the pair of opposing

Art Unit: 3654

end flanges (11, 12 and 51) are each separably capable of being connectable to the inner cylindrical center portion and to the outer cylindrical center portion (see figures 1-2 and 5).

**13. Regarding claim 30,** Harvey further shows wherein each opposing end flange has an inner face that is capable of being configured to mate with and separably connect to an end of the inner cylindrical center portion and an end of the outer cylindrical center portion (see figures 1-2 and 5).

**14. Regarding claim 31,** Harvey further shows wherein the inner face of each opposing end flange has a first plurality of notches (see holes 53 of 11, 12 and 51 closest to 16 or 47 in figures 1 and 4-5, column 3 lines 39-42, and column 5 lines 17-21) spaced apart along an inner pitch circle (see figures 1-2 and 4-5) about a central axis (considered the axis of 16 or 47) of the respective end flange and a second plurality of notches (see holes 53 of 11, 12 and 51 farthest from 16 or 47 in figures 1 and 4-5, column 3 lines 39-42, and column 5 lines 17-21) distributed along an outer pitch circle (see figures 1-2 and 4-5) about the central axis (considered the axis of 16 or 47) of the respective end flange, wherein the outer pitch circle has a radius greater than the inner pitch circle (see figures 1-2 and 4-5).

### ***Claim Rejections - 35 USC § 103***

**15.** The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 3654

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**16. Claims 32-33 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harvey (EPO Patent Application 0491400 A1) in view of Faulkner (US Patent 5,474,254).**

**17. Regarding claim 32,** the device of Harvey is discussed above. Harvey does not explicitly disclose wherein each end of the inner cylindrical center portion comprises fastening hooks configured to mate with notches in the inner pitch circle and wherein each end of the outer cylindrical center portion comprises fastening hooks configured to mate with notches in the outer pitch circle. Faulkner discloses a spool and method of making same that teaches of a cylinder 20 (or cylindrical center portion) that uses fastening hooks 26 to connect the cylinder to notches 37 (see figure 1 and column 2 lines 13-34) of flanges 30 to secure the flanges to the cylinder. At the time of the invention, it would have been obvious to a person of ordinary skill in this art to modify the device of Harvey by modifying substituting hooks for the pins 55 of Harvey so that the inner and outer cylindrical center portions of Harvey are connected by fastening hooks, to follow the teaching of Faulkner of using fastening hooks to secure the flanges to the cylinder (or hub), and to provide fastening means that prevent slippage of the center cylindrical portions from the flanges.

**18. Regarding claim 33,** Harvey further shows wherein both the flange sector and the flange segment are capable of being connectable to the inner cylindrical center portion when each end of the inner cylindrical center portion is connectable to the



Art Unit: 3654

opposing end flanges and wherein both the flange sector and the flange segment are connectable to the outer cylindrical center portion when each end of the outer cylindrical center portion is connectable to the opposing end flanges (see figures 1-2 and 5).

**19. Regarding claim 40,** the device of Harvey is discussed above. Harvey further shows that the first and second pluralities of cylindrical segments are connectable to the flanges (see figures 1-2 and 5). Harvey does not explicitly disclose wherein the first and second pluralities of cylinder segments are connectable to the opposing end flanges by fastening hooks. Faulkner discloses a spool and method of making same that teaches of a cylinder 20 (or cylindrical center portion) that uses fastening hooks 26 to connect the cylinder to notches 37 (see figure 1 and column 2 lines 13-34) of flanges 30 to secure the flanges to the cylinder. At the time of the invention, it would have been obvious to a person of ordinary skill in this art to modify the device of Harvey by modifying substituting hooks for the pins 55 of Harvey so that the inner and outer cylindrical center portions of Harvey are connected by fastening hooks, to follow the teaching of Faulkner of using fastening hooks to secure the flanges to the cylinder (or hub), and to provide fastening means that prevent slippage of the center cylindrical portions from the flanges.

**20. Claims 34-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harvey (EPO Patent Application 0491400 A1) in view of Faulkner (US Patent 5,474,254) as applied to claim 29-33 and above, and further in view of Salloum (US Patent 5,004,179).**

Art Unit: 3654

**21. Regarding claim 34,** the device of Harvey as modified by Faulkner is discussed above. Harvey does not explicitly disclose wherein the flange sector and the flange segment are connected together by a splice connection. Salloum discloses a molded sectional reel that teaches of a flange sector (see uppermost 55 in figure 8) and flange segment (see lowermost 55 in figure 8) connected to together in a splice connection (56 and 57, see figures 8 and columns 3-4 line 62 to line 7) to connect parts of the flange together. At the time of the invention, it would have been obvious to a person of ordinary skill in this art to modify the device of Harvey by providing a splice connection to the flange sector(s) and flange segment(s) of Harvey so that those parts of the flanges are connected together by a splice connection, to follow the teaching of using a splice connect to connect parts of the flange together, and to provide quick means of connecting parts of the flange together.

**22. Regarding claim 35,** Harvey further shows wherein each flange sector 51 is capable of comprising a series of triangular flange portions (see column 5 lines 7-12. figure 5 and figure below), the triangular flange portions defining notches in the first plurality of notches (see figure 5 and figure below).



**24. Regarding claim 37,** Harvey further shows wherein the flange segment (11 and 12, also see figure 5) is capable of defining a rolling surface (see figure 5) and defines notches in the second plurality of notches (see holes 53 of 11 and 12 farthest from 16 or

Art Unit: 3654

47 in figures 1 and 4-5, column 3 lines 39-42, and column 5 lines 17-21).

**25. Claim 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over Harvey (EPO Patent Application 0491400 A1) in view of Dobson (US Patent 819,866).**

**26. Regarding claim 38,** the device of Harvey is discussed above. Harvey does not explicitly disclose wherein the wherein the plurality of cylinder segments are connected by dovetail connections. Dobson shows a sheet-metal cylinder segment (see figure 5, considered a cylinder segment by the examiner) that teaches a series of teeth (a) and notches (b) to connect the sheet-metal cylindrical segment ends together, see figure 5. The teeth and notches shown by Dobson are considered dovetail connections by the examiner. At the time of the invention, it would have been obvious to a person of ordinary skill in this art to modify the device of Harvey by providing dovetail connections for the inner and outer cylindrical center portions so that the portions are connectable by dovetail connections, to follow the teaching of Dobson of using Dovetail connections to connect ends of a cylindrical segment, and to provide means of connecting the cylindrical center portions of Harvey directly to each other.

**27. Claim 39 is rejected under 35 U.S.C. 103(a) as being unpatentable over Harvey (EPO Patent Application 0491400 A1) in view of Campbell (US Patent 3,940,085).**

Art Unit: 3654

**28. Regarding claim 39**, the device of Harvey is discussed above. Harvey does not explicitly disclose wherein the first and second pluralities of cylinder segments are interconnected, respectively, by screw-bolt- joints. Campbell discloses a collapsible reel that teaches of cylindrical segments 12 connected together by a pair of bolts 32 and holes 34 (considered screw-bolt-joints, see figure 2). At the time of the invention, it would have been obvious to a person of ordinary skill in this art to modify the device of Harvey by providing screw-bolt-joints for the inner and outer cylindrical center portions of Harvey so that cylindrical segments are connected by screw-bolt-joints, to follow the teaching of Campbell of using screw-bolt-joints to connect cylindrical segments (or inner and outer cylindrical center portions) together, and to provide means of connecting the cylindrical center portions of Harvey directly to each other.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Juan J. Campos whose telephone number is (571) 270-5229. The examiner can normally be reached on 9am-6pm (Monday-Thursday).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Q. Nguyen can be reached on (571) 272-6952. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3654

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John Q. Nguyen/  
Supervisory Patent Examiner, Art Unit 3654

/JJC/